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特願2002-244502 2002 年 8 月 26 日 (26.08.2002) JP
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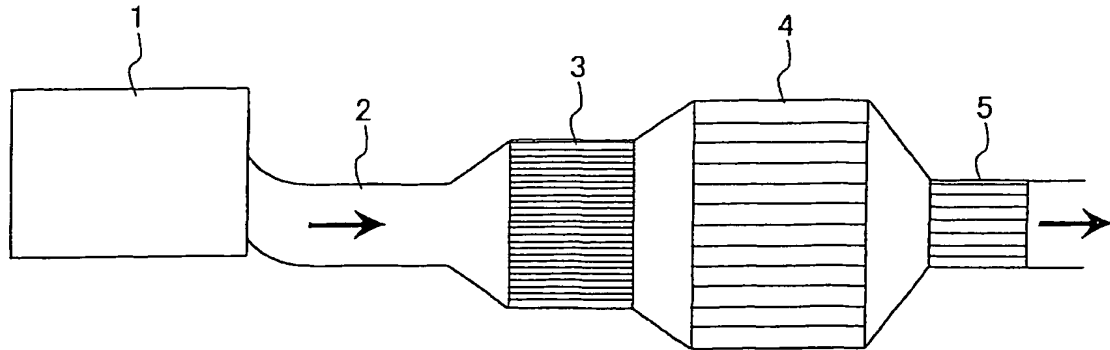
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[続葉有]

(54) Title: APPARATUS AND METHOD FOR CLARIFYING EXHAUST GAS OF DIESEL ENGINE

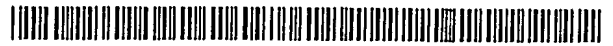
(54) 発明の名称: ディーゼルエンジンの排気ガス浄化装置および排気ガス浄化方法



(57) Abstract: An apparatus for clarifying an exhaust gas of a diesel engine, characterized in that it has an NO_x adsorption and reduction type catalyst and a diesel particulate filter for oxidizing and removing particulate matters in the exhaust gas, which are provided in the flow route for the exhaust gas and are arranged in the above described order from the upstream of the flow of the exhaust gas. The above arrangement allows the elevation of the temperature of the catalyst with ease and the precise control of the temperature and atmosphere therein, resulting in the achievement of satisfactory NO_x clarification performance, and the employment of the NO_x adsorption and reduction type catalyst allows the enhancement of the rate of reduction of the NO₂ captured, which shortens the time to keep a stoichiometric-rich atmosphere to a time of several seconds to several minutes.

(57) 要約: ディーゼルエンジンの排気ガス流路に、排気の流れの上流から、NO_x吸着還元型触媒、排気ガス中の粒子状物質を酸化除去せしめるディーゼルパティキュレートフィルタを順に設置する。このように配置することで、触媒温度が上がりやすくなり、また温度及び雰囲気気の精密な制御が可能になるため、十分なNO_x浄化性能を得ることができるようになり、しかも、NO_x吸着還元型触媒の使用により、捕捉NO₂の還元速度が速く、ストイキ〜リッチ雰囲気気を保持する時間を数秒〜数分に短縮することができる。

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2文字コード及び他の略語については、定期発行される各PC7ガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

添付公開書類:

— 国際調査報告書

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/10751

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl.⁷ F01N3/08, F01N3/02, F01N3/24

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Jitsuyo Shinan Toroku Koho	1996-2003
Kokai Jitsuyo Shinan Koho	1971-2003	Toroku Jitsuyo Shinan Koho	1994-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2002-129950 A (Toyota Motor Corp.),	1, 11
Y	09 May, 2002 (09.05.02), Fig. 1 (Family: none)	2-10
Y	JP 3-74561 A (Mazda Motor Corp.), 29 March, 1991 (29.03.91), Full text; Fig. 1 (Family: none)	2-5, 9
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 400702/1990 (Laid-open No. 87332/1992) (Mitsubishi Motors Corp.), 29 July, 1992 (29.07.92), Full text; all drawings (Family: none)	2-5, 9

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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Name and mailing address of the ISA/
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INTERNATIONAL SEARCH REPORT

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2001-50033 A (Hitachi, Ltd.), 23 February, 2001 (23.02.01), Column 2, lines 5 to 15; Par. No. [0070] (Family: none)	6-8, 10